DIGITIZATION OF EDUCATION -   A CHANGE IN TEACHING AND LEARNING METHODOLOGY

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ABSTRACT:

Use of technology has become a common practice in today's world. Now a day, role of IT has become more important in education system through digital media. Development of digitization can be outstanding i it can be more effective by utilizing in education, research and extension activities. The paper attempts to understand whether digitization of education has brought a significant change in teaching and learning methodology. The focus of the paper is on three modules i.e. improvement in education system with digitization, conceptual development with digitization, and finally accessibility of information through digitization. The study is empirical in nature and the data is collected by using well structure questionnaire. Statistical analysis of the data shows that digitization has helped in easy access to unlimited sources of information and shows good connectivity in improvement of education by promoting critical and logical thinking which leads to conceptual development.

Key Words: Digitization, Education, Conceptual development and Accessibility.

1. Introduction:

Digitization is the conversion of traditional, analog materials such as books, maps and other papers items into an electronic, digital copy for creating an interactive learning environment. The introduction of educational technology has created a drastic change in the quality of education in India. Schools and colleges are adopting digital solutions to enhance learning experience of new generation students. Digitization has made the environment of classes more interactive and participative. Through digitization, teachers are able to teach students by showing 3D models and it's functioning in an effective manner rather than drawing a complicated diagrams on blackboard which consumes lots of time. Digitization has definitely made the process of education more simplified and attention grabbing. Furthermore, it has helped in the promotion of higher education like never before. Digitization has lessened the distance between students and their education needs.

Technology has its own advantages and disadvantages. There are lots of emerging content and cool apps but nothing working together.Constantly changing software and hardware versions made it tough for schools to stay updated(but cloud computing will help). Learning new tools will be easy part but learning new roles will be more challenging task particularly as school models proliferate. Customized learning will require much better management and scheduling tools.The risk of layering the technology on top should be the priority for every educational institution by effectively managing the challenges to reap the benefits.

2. Scope of Study:

Education is the supportsystem of nation. Now a day, digital education is gaining a lot of popularity with the increasing demand of education and with the widely use of internet. With the evolution of technologies like the data centers, cloud and virtualizations, there is a large potential of technology to be use in education system. It is like a winning situation for all. At the same time they are cost effective and easily accessible. Digital education helps the students and teachers in learning according to their schedule and can easily prepare their lessons and notes with the use of technology. Digital education is more helpful to the teachers for making lots of multimedia slides, audio visual aids, and animated videos for delivering lectures to the students. It is very acctractive and easy way of learning and especially very interesting for the students and also helps in fostering intellectual skills.

3. Review of literature:

1. McKeachie, Wilbert J (1986) The Researcher through the article title "Teaching and learning in the College Classroom", has tried to identify the new goals for higher education and offers a conceptual framework based on a student mediation model and focus on the process-product relationships between faculty behavior and students outcomes. Individual section than
review the research in terms of student entry characteristics, student cognition (learning strategies, thinking and problem solving), student motivation, academic task and activities.

2. Amandeep Dhaliwal (2017) The Researcher from thearticle title "AnAnalysis of Applicability of Cloud Computing in Higher Education" has attempted to address Cloud computing as a next generation platform that allows institutions and organizations with a dynamic pool of resources to reduce cost through utilization. Cloud computing can be a reliable solution for fulfilling the needs software, storage services and infrastructure of such institutions as it is based on existing IT technologies such as internet, grid computing, virtualization etc. lastly, author concluded the study of

cloud computing that brings real perspective through cases which are of utmost for better understanding of theses technology in the field of education.

3. Neetu Ahmed & Gurleen Kaur (2017) The Authors through the research topic "Opportunity Analysis of Educational Mobile App to provide Higher Education in Rural India" has tried to reflects the mobile technology usage readiness among the rural students for educational apps based on survey through questionnaire. And the findings show that there exists high level of readiness among the rural youth for educational mobile apps to meet teir educational needs. The study concludes as a reference base for future studies focused on development of mobile learning application specially for improving educational levels of rural students.

4. B. Venkatraman & N. Sethalekshmy (2017) The Authors through the article title "Impact and Challenges of Cloud based E-Learning in the Indian Education Sector" tries to say that Web based learning has taken a new turn over the years. With the proliferation of cloud computing and similar paradigms like mobile cloud computing, e-learning technologies has created waves in the educational sector. To this end, authors conclude this manuscript at some of the foremost challenge of a cloud based services and its direct impact on the growth of e-learning in the Indian education sector.

5. Ioannis Kekes & Anthanasios Spyridakos (2017) The Researchers from thearticle title "Towards an Evaluation Model for Educational Software Analyzing Evaluators Behaviour through the Multicriteria Disaggregation-Aggregation Approach" has tried to identify the evaluation of educational software that can constitutes a multiplicative and complicated activity with a high degree of liquidity. Since, on the one hand, technical issues are involved in the phase of planning and development of educational software and on the other hands issues such has educational goals, learning theories, learning styles, educational policies and others are taken into consideration. Although different methods have been proposed , it has been shown that evaluation of educational software should not be placed within the border at each case should be examined separately. The study concludes that the evaluation was achieved through a process during which the evaluators learn better the nature of the problems and supported to rationalize their structure of preferences, in the context of reflection procedure.

6. Dr. Praveen Babel, Vimlesh Tanwar (2017) The Authors through the researchtopic "The use of Social Networking sites among the students of Higher Education in Universities of Rajasthan, India"has attempted to investigate the use of social networking sites among the students of higher education. In the present time of mass media, social networking sites have come to mean individuals,

using the internet and web application to communicate in previously impossible ways. The objective of the study is to find out the various categories of social networking sites used by the students of higher education and the purpose of using social networking sites and to establish the benefits of social networking sites. Hence, the result of the study reveals that mostly all the students were using social networking sites in interaction with friends, connecting wit classmates, for online study and for discussing serious national issues and watching movies etc. it is recommended that universities authorities should organize seminars to enlighten students on the educational aspects of social networking sites.

7. Rupesh Rajak & Bibhas Chandra (2017) The Authors through thearticle title "A Qualitative Analysis on Integrated Approach Towards Teachers' Burnout and Work Engagement in Indian HEIs"has attempted to extend the understanding of work management in teachers in higher educational institutions and to find out problems in the Indian context. Inductive content analysis was used for data collection using a CAQDAS package named ATLAS.ti7. From this study five new factors from the Indian context emerged out, that is, interaction with students, teaching methods, flexible timing and long break, unnecessary rules and regulations and better HR policies. The study concludes that all these factors could be the input towards further studies in academic development as well as for employee well-being and productivity.

4. Objective of the study:

- The study was undertaken with an objective to analyse the improvement of education with digitalisation in education system
- To understand whether digitization of education has brought a significant change in teaching and learning methodology
- To analyse digital learning technology has a greater effect on education system.

5. Hypothesis:

Ho: Digitization in education has not made any significant contribution in improvement of education system.

H1: Digitization in education has made any significant contribution in improvement of education system.

6. Methodology of the study:

The empirical study was carried out by using both primary and secondary sources. The study used questionnaire based survey method. Questionnaire and observations represents the most common

methods of data collection. We selected a random sample of 70 Doctorate and Graduate and Post Graduate students from different educational institutions. Questionnaires were distributed personally to the professors and the students of different colleges. Out of 70 distributed Questionnaire, 50 respondents which is taken for data analysis. The respondent's data were analysed by the SPSS software. ANOVA test was used for the analysis of data.

7. Data Analysis:

Descriptives
Improvement in Education

Qualification	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Min	Max
					Lower Bound	Upper Bound		
Under Graduate	12	44	10.144	2.928	37.55	50.45	27	60
Graduate	8	45.13	8.903	3.148	37.68	52.57	32	60
Post Graduate	28	42.68	11.725	2.216	38.13	47.23	12	58
Doctorate	2	47	1.414	1	34.29	59.71	46	48
Total	50	43.56	10.564	1.494	40.56	46.56	12	60

Test of Homogeneity of Variances
Improvement in Education

Levene Statistic	df1	df2	Sig.
1.221	3	46	0.313

ANOVA
Improvement in Education

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	67.338	3	22.446	0.191	0.002
Within Groups	5400.982	46	117.413		
Total	5468.32	49			

Interpretation:

The above table demonstrates ANOVA with respect to digitization in qualification. It is being observed that there is significant impact of digitization of qualification on improvement in education system. (Sig. p = 0.002 < 0.05)

8. Findings

1. The mean of responses received by P.hD's (Doctorate) is quiet high with low standard deviation when compared with other levels of qualifications.
2. The significant value of ANOVA test is less than level of significance (p=0.002 < 0.05)
3. The study find that the digitization of education has significantly transformed the teaching and learning methodology, bringing about both opportunities and challenges
4. The study find that one of the most profound impacts of digitization on education is the ability to personalize the learning experience

9. Suggestions:

The digitization of education has brought significant changes to teaching and learning methodologies. While it offers various benefits in terms of accessibility, engagement, and personalization, it also presents challenges related to access, quality, and privacy. The future of education will likely involve a balance between digital and traditional methods, with an emphasis on providing equitable access to high-quality education for all learners. However, challenges such as the digital divide and ensuring the quality of digital content must be addressed to harness the full potential of digitization in education. Striking a balance between digital and traditional methods while prioritizing equitable access to high-quality education for all learners is essential for the future of education. The ongoing evolution of digitization will continue to reshape education and present opportunities for innovation and improvement in the coming years.

10. Conclusion:

The study concluded that change in digitization have a great impact towards development in education system and innovation technology. The above analysis clearly shows that digital learning technology has a greater effect on education system and parallels it may have some defects. Teachers and students should take advantage of this in the positive way and eliminate the negative effects which are pulling back many of the students as well as education institutions from achieving their excellences. Thus digitization is not only a means of current scenario but a tool to achieve excellence, provided if it used in a proper manner. It is an effective methodology for teachers so that they can help students to learn better in a best possible way.

Furthermore, it has helped in the promotion of higher education like never before. Digitization has lessened the distance between students and their education needs. Thus, the

digitization method made the teaching and learning process of education more diversified. Thus, with digitization imparting of education became easy and more conceptual.

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